

REMARKS

This Amendment is filed in response to the Final Office Action mailed Nov. 20, 2008 in connection with a Request for Continued Examination. The Applicant respectfully requests reconsideration. All objections and rejections are respectfully traversed.

Claims 1-30 are pending in the application.

Claims 1, 3, 7, 8, 10, 14, 15, 17-22 and 24-28 have been amended.

New claims 29 and 30 have been added. Support for such new claims may be found at paragraph 0007 of the specification among other places in the specification.

Claim Rejections - 35 U.S.C. §103

At paragraphs 1-2 of the Office Action, claims 1-28 were rejected under 35 U.S.C. §103(a) over Soon et al., U.S. Publication No. 2004/0001443 (hereinafter “Soon”) (in view of Parker, U.S. Patent No. 5,822,520 (hereinafter “Parker”).

The Applicant’s amended claim 1, representative in part of the other rejected claims, sets forth (emphasis added):

1. A method for modifying and testing a network protocol stack that includes a plurality of protocols, the method comprising:

executing a test of said network protocol stack using a processing system, the test modeling each protocol of said plurality of protocols of said protocol stack as separate objects, the test simulating communication between a plurality of devices using said network protocol stack;

receiving a command comprising code to modify one of said plurality of protocols in said protocol stack; and

performing said modification on said one of said plurality of protocols in said protocol stack while the test is executing, by changing said separate object corresponding to said one of said plurality of protocols in said protocol stack.

Soon discusses a technique for “validating the soundness and completeness of a routing protocol implementation.” See paragraph 0015, lines 1-4. First, a user creates a “a test bed of a network-under-test, establishing an initial network topology, and placing

testing devices at one or more various points in the network under test.” *See* paragraph 0020, lines 5-8. Then, “the routing protocol under test is activated.” *See* paragraph 0021, lines 1-5. Soon allows a user to modify the test scenario/test messages, for example by generating particular messages, changing the message delivery rate, changing message sequences, etc. to test the robustness of the routing protocol. *See* paragraph 0023. For example, a “PDU editor component allows users to create and edit messages from scratch”, so a user can test various aspects of the routing protocol. *See* paragraph 0032, lines 8-11. However, while the input (e.g. test scenarios, test messages etc.) to the routing protocol may be “modified” by a user, Soon makes no mention of any mechanisms for allowing a user to modify the routing protocol itself during a test.

Parker discusses a technique for “generating test packets” having arbitrary characteristics that can be used in testing a protocol stack. *See* abstract lines 1-3 and col. 2, lines 35-37 and col. 2, lines 14-22. Parker comments that “it is important in the testing and development of protocol stacks to understand how a ‘good’ protocol stack will react to erroneous message packets.” *See* col. 2, lines 19-22. Thus, Parker provides a “packet creator” that a user can use to create “erroneous message packets.” *See* col. 7, lines 18-20. However, while various message packets may be created that can be supplied to a protocol stack to test it, Parker makes no mention of any mechanisms for allowing a user to modify the protocol stack itself during a test.

The Applicant respectfully urges that both Soon and Parker are silent concerning the Applicant’s claimed *“receiving a command... modify one of said plurality of protocols in said protocol stack”* and *“performing said modification on said one of said plurality of protocols in said protocol stack while the test is executing, by changing said separate object corresponding to said one of said plurality of protocols in said protocol stack.”*

While the Applicant provides a technique for modify a protocol in said protocol stack while the test of the protocol stack is executing, by changing a separate object corresponding to the protocol, both Soon and Parker simply discuss modifying input (e.g.

test scenarios, test messages etc.) to a protocol under test, and make no mention of any mechanisms for modifying a protocol itself while a test is executing.

As the Applicant discusses in the specification, developers are constantly implementing new networking protocols for use in protocol stacks or are reusing existing protocols in different configurations to create new protocols stacks. It falls to testers to test such new protocols or new protocol stacks. In such testing, the Applicant has determined it is useful to not only allow input to the test to be modified, but also to provide a mechanism for a user to modify one of the protocols in the protocol stack itself during an ongoing test. Such technique may be facilitated by modeling each protocol of said plurality of protocols of a protocol stack as separate objects.

As discussed above, Soon makes no mention of any mechanisms for allowing a user to modify a routing protocol itself during a test. Soon merely discusses allowing a user to modify the test scenario/test messages the routing protocol is subject to, for example using a “PDU editor component” to create and edit messages. *See* Soon paragraph 0032, lines 8-11.

Similarly, Parker makes no mention of any mechanisms for allowing a user to modify a protocol stack itself during a test. Parker merely discusses a technique for “generating test packets” having arbitrary characteristics that can be supplied to a protocol stack to test it. *See* abstract lines 1-3 and col. 2, lines 35-37 and col. 2, lines 14-22.

Accordingly, the Applicant respectfully urges that the combination of Soon and Parker is legally insufficient to make obvious the present claims under 35 U.S.C. §103(a) because of the absence of the Applicant’s claimed novel “*receiving a command... modify one of said plurality of protocols in said protocol stack*” and “*performing said modification on said one of said plurality of protocols in said protocol stack while the test is executing, by changing said separate object corresponding to said one of said plurality of protocols in said protocol stack.*”

In the event that the Examiner deems personal contact desirable in disposition of this case, the Examiner is encouraged to call the undersigned attorney at (617) 951-2500.

In summary, all the independent claims are believed to be in condition for allowance and therefore all dependent claims that depend there from are believed to be in condition for allowance. The Applicant respectfully solicits favorable action.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

/James A. Blanchette/
James A. Blanchette
Reg. No. 51,477
CESARI AND MCKENNA, LLP
88 Black Falcon Avenue
Boston, MA 02210-2414
(617) 951-2500